basis, licensees are advised to seek advice from FCC counsel prior to entering into management agreements or joint marketing agreements that contemplate substantial involvement by an outside party.

IV. 2 GHz BROADBAND PCS TECHNICAL RULES

A. Power Limits

The FCC has established limits for maximum base station power and base station output power. In order to enhance the ability of PCS licensees to configure their systems to best serve their customers and to compete with other mobile services such as cellular and wide area specialized mobile radio, the FCC has limited the maximum base station power to 1640 Watts e.i.r.p. Correspondingly, to ensure balanced base-to-mobile and mobile-to-base communications, the FCC has also limited the transmitter output power of the base station to 100 Watts e.i.r.p. By limiting the transmitter output power as well as the e.i.r.p., the FCC intends to promote the use of high gain, directional antennas to achieve the larger coverage areas sought by potential PCS licensees. Additionally, the FCC has established a maximum power limit of 2.0 Watts e.i.r.p. for mobile and portable PCS transmitters.

B. Non-Interference Obligations

In order to minimize interference between PCS licensees and to protect existing fixed microwave users from service degradation, the FCC has established a number of non-

interference obligations for broadband PCS licensees. The FCC has adopted detailed guidelines in the following areas:

- PCS licensees are required to provide the same level of protection to microwave operators as the latter currently are provided under Part 94 through the use of EIA/TIA Bulletin TSB-10E criteria and methodology;
- PCS licensees must adhere to specified antenna height and power limits;
- PCS licensees must coordinate with fixed microwave operators; and,
- PCS licensee are required to limit all spurious emissions[48] appearing outside and inside the spectrum band allocated to PCS.

In addition, the FCC has provided specific methods for calculating interference from PCS to incumbent microwave operations. Each of these requirements is discussed in further detail in Section VII.

1. Emissions Limits

PCS licensees are required to attenuate their emissions outside their licensed frequency block to avoid interfering with adjacent channel licensees.[49] Regardless of whether the adjacent spectrum is allocated for another PCS licensee, unlicensed PCS use, or for services outside of the 1850-1990 MHz band, signals must be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB or 80 dB, whichever is the lesser

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[48] A spurious emission is defined as an emission on a frequency or frequencies that is outside the necessary bandwidth and the level of which may be reduced without affecting the corresponding transmission of information. Spurious emissions include harmonic emissions, parasitic emissions, intermodulation products, and frequency conversion products, but exclude out-of-band emissions. *See* 47 C.F.R. § 2.1.

[49] Transmitters are also subject to a frequency stability requirement. *See* 47 C.F.R. § 24.235.

attenuation. The Commission has reserved its discretion, however, to require greater attenuation if emissions conforming with these limits cause harmful interference.

2. Coexisting With Other PCS Users

Under the broadband PCS rules, interference with co-channel licensees is limited by controls on base station height and power (discussed in Section II(C)) and restrictions on the signal contour of the system at the service area boundaries. PCS licensees must ensure that the predicted or measured median field strength on the border of the PCS service area shall not exceed 47 dBμV/m,[50] unless the parties agree to a higher field strength. Thus, *de minimis* extensions are not permitted absent written consent by the licensee of the adjacent service area.

3. Interoperability Standards

The FCC has not mandated interoperability standards for 2 GHz broadband PCS. Licensees are under no FCC requirement to ensure that their operations are compatible with PCS systems operating on other frequency blocks or operating in other areas. As a practical matter, however, the FCC did note that significant standards activities were ongoing in various industry fora, and it encouraged licensees to cooperate to develop interoperability between PCS systems.

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[50] Licensees should note, however, that the 47 dBμV/m contour does not represent the service area boundary for calculating whether the build-out requirements have been met. *See* Section V(D)(2).

C. International Coordination

PCS licensees operating in border areas should be aware that their operations may be subject to prior coordination obligations with Canada or Mexico. At the time of publishing, however, no international coordination agreements have been reached with Mexico relating to usage of the PCS bands. Accordingly, while PCS licensees are free to deploy transmitters near the Mexican border, their operations are unprotected from interference caused by Mexican radio sources. The United States has been attempting to obtain some form of agreement with Mexico that would provide for the coordinated use of PCS spectrum in Mexican border areas.

Deployment of PCS systems in Canadian border areas is currently governed by the bilateral agreement entitled *Interim Sharing Arrangement Between Industry Canada and the Federal Communications Commission Concerning the Use of the Band 1850-1990 MHz* (1994) ["*U.S./Canada Interim Sharing Arrangement*"]. The *U.S./Canada Interim Sharing Arrangement* generally provides:

- The 1850-1990 MHz frequency band is to be shared on an equal basis and both countries are to have full use of these frequencies for PCS;
- Additional use of the 1850-1990 MHz band for fixed point-to-point microwave use is to be limited and discouraged;
- Any new PCS use of the 1850-1990 MHz band is not to cause harmful interference to existing fixed point-to-point microwave operations in the other country;
- Coordination of all PCS systems within 120 km (75 mi.) of the border is required and will be based on a technical analysis, using a recognized industry procedure such as TSB10-F, that interference is not caused to existing

microwave operations or a mutually acceptable arrangement between the PCS and fixed microwave operators;

- Licenses for PCS base station facilities within 72 km (45 mi.) of the border will be conditioned to indicate that future coordination is required between PCS operators in both countries to ensure that interference is not caused to PCS operations in the other country and that the band is shared on an equal basis;

- The predicted or measured median field strength of any PCS base station is not be exceed 47 dBμV/m at any location at or beyond the border unless the affected PCS operators in the adjacent areas agree; and

- Since compatible PCS operations at the border are best assured through coordination of operating and technical parameters by PCS operators, PCS operators are permitted to enter into such arrangements, subject to FCC and Industry Canada notification and review.

Licensees should also note that transborder operations with Canada (*i.e.*, providing service to Canadian mobiles from the U.S. and providing service to U.S. mobiles in Canada) is governed by the *Convention Between the United States of America and Canada Relating to the Operation by Citizens of Either Country of Certain Radio Equipment or Stations in the Other Country* (May 1952). These general provisions provide for the registration of transborder mobile equipment. While specific procedures have been adopted for some individual radio services (*e.g.*, cellular), no specific transborder agreement has yet been reached with regard to either narrowband or broadband PCS.

D. PCS Equipment Type Acceptance Requirements

All equipment deployed under a PCS authorization, including mobile units blanket licensed to PCS system operators, must have received FCC type acceptance. Type acceptance is, except in unusual circumstances, obtained by equipment manufacturers prior to

marketing. However, PCS licensees should be aware that some modifications to equipment that alter the radio emissions characteristics of a transmitter have the effect of voiding the type acceptance. Accordingly, PCS licensees should consult with the FCC or counsel prior to deploying equipment that has been modified by anyone other than the original manufacturer.

PCS licensees should also be aware that the Commission's regulations on radiofrequency radiation exposure limitations are enforced through the type acceptance process. At the time the PCS rules were adopted, the FCC was in the midst of a rulemaking proceeding (ET Docket No. 93-62) to change the basis of its radiofrequency radiation exposure limits from the 1982 ANSI C95.1 standard to the 1992 ANSI/IEEE C95.1 standard. Until that rulemaking is completed, which is anticipated to be in the first quarter of 1995, PCS licensees are specifically required to ensure that their facilities and equipment meet the exposure limits, as appropriate, for controlled and uncontrolled environments in the 1992 ANSI/IEEE C95.1 standard.[51] Under the 1992 ANSI/IEEE C95.1 standards, handsets where the input power to the antenna is 100 milliwatts or less are not required to be evaluated for compliance with the specific absorption rate limits, as long as a 2.5 centimeter separation distance is maintained between the radiating structure and the head.

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[51] The Commission already requires compliance with 1992 ANSI/IEEE C95.1 standards for all handsets used for CMRS operations. *See* Implementation of Section 332 of the Communications Act -- Mobile Service Regulation, 76 Rad. Reg. 2d (P & F) 326, 365 (1994).

E. PCS Numbering

NXX code assignments. As co-carriers, PCS providers utilizing Type 2 interconnection have a right to obtain central office (NXX) codes. Industry numbering groups have developed consensus Central Office Code Assignment Guidelines to set forth standards for assignment of initial and additional NXX codes. (The Guidelines include a standard NXX code request form.) Currently, code assignments are made by the dominant local exchange carrier in each area -- typically, the BOC, but in some cases, GTE. However, the FCC has proposed to centralize responsibility for making code assignments in a single entity not affiliated with any user of numbering resources. This proposal received significant support, and there is a good possibility that it will be implemented some time in 1995.

Non-geographic numbering resources. Traditionally, area codes (also called NPAs) and NXX codes in the North American Numbering Plan have denoted specific geographic locations. For example, the 202 NPA covers Washington, D.C., and NXX codes within the 202 NPA are associated with specific switch locations in Washington, D.C. Although the use of geographic numbers makes sense for landline services, many mobile service providers have sought non-geographic numbers -- that is, numbers that are not tied to a particular physical location -- for use in connection with certain mobile services.

In mid-1993, after several rounds of industry discussions, the North American Numbering Plan Administrator (NANPA) announced that it would make the 500 Service Area Code available for "personal communications services" (a broader term than the FCC's definition of PCS). 500 numbers (like 800 numbers) do not denote specific geographic

locations. However, in response to industry concerns that the 500 code assignment guidelines might disadvantage new PCS entrants, the FCC directed NANPA to defer assigning 500 numbers until it sought comment on whether the proposed use of the resource was in the public interest.

In mid-1994, the Commission advised NANPA that it could begin assigning 500 numbers. As of early August 1994, NANPA had assigned 280 of the 781 available 500 NXX codes. Because of strong demand for these numbers, the industry is considering code conservation measures, as well as the possibility of opening up the 400 Service Area Code for non-geographic PCS numbering assignments.

Even though 500 numbers have been assigned, questions remain regarding the precise physical interconnection arrangements and charges for 500 access. Several LECs have sought waivers of the FCC's rules in order to establish 500 access charges, and some have filed tariffs contingent upon approval of the waivers. As of late August 1994, the FCC had not acted on these waiver requests.

Finally, many mobile service providers have expressed an interest in "personal numbering." Under this concept, a customer would use the same telephone number regardless of his or her physical location and the network employed to deliver the call. Some carriers have introduced versions of personal numbering services, but discussions about how to implement personal numbering remain pending in U.S. and international numbering organizations.

F. 911 and E-911 Requirements

The FCC has recently initiated a rulemaking proceeding to examine 911 and E-911 requirements for PCS providers. At the time of printing, however, this rulemaking has not been completed. PCS licensees should be aware that specific regulations concerning treatment of 911 and E-911 calls could be implemented by the time that narrowband PCS licenses are issued. Licensees are encouraged to contact either PCIA or the FCC to determine if any regulations have been adopted before purchasing network equipment to ensure that their switching equipment has the technical capabilities necessary to comply with FCC requirements.

V. 2 GHz BROADBAND PCS OPERATIONAL RULES AND REGULATIONS

A. Federal and State Jurisdictional Relationship

The states and the federal government have traditionally shared responsibility for regulating wireless communications services, with the FCC regulating interstate aspects and the states regulating intrastate aspects. Federal regulation is based on Titles II and III of the Communications Act, which govern common carrier and radio services, respectively.[52] Recently, however, Congress enacted amendments to the Communications Act that substantially revise the division of authority over wireless carriers.

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[52] Title II also delineates the regulation required at the federal level by the FCC. Its application to CMRS is discussed in Section V(B).

The Budget Act of 1993 provides that, as of August 10, 1994, state entry and rate regulation over CMRS (which includes PCS) will be preempted. However, this preemption is limited in several respects. First, states are still permitted to regulate "other terms and conditions" of CMRS offerings, such as quality of service, blocking rates, and transfer of control of common carriers. Second, CMRS providers that offer substitutes for landline telephone exchange service for "a substantial portion of the communications within a state" are not exempt from state requirements imposed on all telecommunications providers designed to ensure universal service at affordable rates.[53]

In spite of the preemption, a state may petition the Commission for authority to begin or continue to regulate commercial mobile service rates. A state petitioning to regulate (or continue regulation of) CMRS must demonstrate that prevailing market conditions will not protect subscribers adequately from unjust and unreasonable rates or rates that are unjustly or unreasonably discriminatory. The state bears the burden of proving that it has met the statutory basis for the continuation or establishment of state rate regulation, and in its rules, the Commission has outlined types of evidence that would be pertinent to establishing the necessity for such regulation.[54]

For states filing petitions to continue rate regulation by August 10, 1994, and that had rate regulation in effect as of June 1, 1993, the Budget Act allows continued state jurisdiction

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[53] Petitions seeking to demonstrate that state rate regulation is appropriate because CMRS is a replacement for landline telephone exchange service for a substantial portion of the telephone landline exchange service provided within the state must include a showing: (1) that market conditions are such that they do not protect subscribers adequately from unjust and unreasonable rates, or (2) that rates that are unjustly or unreasonably discriminatory, and a substantial portion of the CMRS subscribers in the state or a specified geographic area have no alternative means of obtaining basic telephone service. Implementation of Section 332 of the Communications Act -- Mobile Service Regulation, 9 FCC Rcd 1411, 1505 (1994) ["*CMRS Second R&O*"].

[54] *Id.*

pending FCC auctions on the petitions. The FCC must complete its consideration of these petitions within twelve months after the petitions are filed. As of August 10, 1994, Arizona, California, Connecticut, Hawaii, Louisiana, New York, Ohio, and Wyoming filed petitions to continue rate regulation. The FCC has solicited public comment on these petitions and is expected to act upon them shortly. Companies doing business or considering providing PCS should consult the FCC or PCIA to determine the status of action on the petitions to continue regulation, as well as determining whether any states subsequently file petitions to initiate regulation.[55]

B. CMRS Regulations

While the broadband PCS rules do not limit use of the spectrum to Commercial Mobile Radio Service ("CMRS") operations, broadband PCS licensees are presumed by the Commission to be offering CMRS.[56] As CMRS operators, PCS licensees are subject to various regulations under Title II of the Communications Act. The same standards apply to resellers of PCS service. A complete list of the Title II regulations applicable to PCS licensees is shown in Table 6 below.

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[55] Interested parties also may petition the FCC to suspend state rate regulation, which must be based on recent empirical data or other significant evidence. Parties will not be allowed to file such petitions until eighteen months after the state regulations are implemented.

[56] Applicants for new authorizations are permitted to make a showing, however, that their operations will conform to the requirements of private mobile radio services.

TABLE 6: TITLE II REGULATIONS APPLICABLE TO PCS LICENSEES	
Section	Description
201	Service and charges. This section requires carriers to provide service upon reasonable request and imposes a general requirement that rates, terms and conditions of service are just and reasonable.
202	Discrimination and preferences. This section imposes an obligation on carriers to avoid rates, terms and conditions that are unjustly or unreasonably discriminatory.
206	Carriers' liability for damages.
207	Recovery of damages.
208	Complaints to Commission; investigations; duration of investigation; appeal of order concluding investigation.
209	Orders for payment of money.
210	Franks and passes; free service to governmental agencies in connection with national defense.
213	Valuation of property of carrier.
215	Examination of transactions relating to furnishing of services, equipment, etc.; reports to Congress.
216	Receivers and trustees; application of chapter.
217	Agents' acts and omissions; liability of carrier.
218	Management of business; inquiries by Commission.
219	Reports by carriers; contents and requirements generally.
220	Accounts, records and memoranda.
221	Consolidations and mergers of telephone companies.
223	Obscene or harassing telephone calls in the District of Columbia or in interstate or foreign communications.
225	Telecommunications services for hearing-impaired and speech-impaired individuals.
226	Telephone operator services.
227	Restrictions on the use of telephone equipment.
228	Regulation of carrier offering of pay-per-call services.

1. Obligation To Provide Service at Just and Reasonable Rates on a Non-Discriminatory Basis

Under Sections 201 and 202 of the Title II, all CMRS licensees are required to offer service on a non-discriminatory basis at rates that are just and reasonable. Although rates are not generally regulated through a tariff approval process at either the federal or state level,[57] these sections do impose affirmative requirements upon carriers:

- Carriers may not deny service to resellers, including other facilities-based competitors,[58] or unreasonably restrict resale. In other words, carriers may not prevent a customer from using a service for any purpose for which a payment, surcharge, or other compensation will be received by the customer. Carriers may not require that customers have a communications requirement of their own, or a direct interest in the content of communications, in order to purchase a service.

- While carriers are not required to notify resellers of every new or changed rate plan, carriers must allow resellers to take service on the same terms and conditions as any other customer would take service. Thus, a carrier does not need affirmatively to notify resellers of new or modified rate plans unless it does so for other customers.

- Carriers need not separate their wholesale and retail offerings. While the Commission establishes marketplace rules that permit resale, it is up to the reseller itself to decide if market entry is sufficiently profitable. The Commission has never required a specific wholesale/retail price margin.

- Carriers may condition service offerings to customers on terms and conditions that are reasonable in light of the circumstances, including minimum time

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[57] As previously noted in Section V(A), states are generally preempted from regulating CMRS rates. However, a number of states have filed petitions to continue their regulations that, by operation of the statute, will continue their regulations in force until the FCC acts on their petitions. Some of these regulations may be broad enough to include regulation of PCS. In addition, states could file petitions seeking to initiate state regulation of PCS rates.

[58] Under the Commission's rules for cellular systems, a cellular licensee may deny a resale request by the other facilities-based carrier operating in the market after the latter's the five-year build-out period has expired. No analogous rule currently exists for PCS.

commitments, termination charges, and recurring charges. Carriers should note, however, that the terms and conditions of service are also subject to state regulatory oversight. If a reseller meets the applicable terms and conditions for an offering, however, the service plan and any bulk discounting must be made available to the reseller.

Thus, even in the absence of explicit tariffing requirements, carriers should nonetheless ensure that they keep track of all rate plans offered to any customers and the terms and conditions that apply to such rate plans.

2. Interconnection

PCS licensees, as CMRS providers, are also entitled to reasonable and fair interconnection from local exchange carriers ("LECs"), *i.e.*, a LEC may not deny a CMRS provider any form of interconnection arrangement that the LEC makes available to any other carrier or customer, unless the LEC can demonstrate that such requested interconnection arrangement is not technically feasible or economically reasonable. PCIA has published an updated *1995 Interconnection Primer* that describes the technical interconnection configurations available to CMRS providers, reviews the terms and conditions of interconnection in detail, and suggests forms and negotiating strategies for obtaining fair and reasonable interconnection.

The Commission is currently evaluating a number of other important interconnection issues. These include:

- Whether equal access obligations should be imposed on PCS providers and cellular operators?

- Whether LECs should tariff interconnection rates or whether the FCC should continue to rely upon its current system of individually negotiated contracts regarding interconnection arrangements?

- Whether CMRS licensees should be required to provide resale to non-facilities based competitors in the licensee's service area and/or facilities-based competitors that have held licenses for less than five years?

By classifying PCS as CMRS, the Commission hopes to achieve its goals of universality of service, speedy deployment of PCS, promoting diversity of service and fostering competitive delivery. Moreover, CMRS status for PCS is intended to accomplish Congress' intent in enacting the Omnibus Budget Reconciliation Act of 1993 by establishing regulatory symmetry among mobile service providers.

3. Section 208 Complaint Procedures

Under Section 208 of the Communications Act, customers, competitors, and other entities may file formal or informal complaints against a carrier. The nature of the complaint triggers differing regulatory obligations and procedures.

Informal complaints. When an individual or other entity files an informal complaint with the FCC, it usually is submitted in letter form. The FCC then forwards the complaint to the carrier, requesting a resolution of the matter or other response within thirty days. If the carrier's response does not satisfy the complainant, the FCC staff often will pursue informal mediation efforts in an attempt to resolve the matter. If the situation cannot be concluded on an informal basis to the satisfaction of all involved parties, the FCC may recommend to the complaining party that it file a formal complaint.

Formal complaints. The filing of a formal complaint with the FCC triggers the application of modified trial-type proceedings. The carrier against whom the complaint is filed has an opportunity to file an answer, and also to submit its own claims if appropriate. Written interrogatories are specifically contemplated by the FCC's rules, although depositions and similar types of discovery must be specifically requested and justified.

The FCC encourages parties to formal complaint proceedings to undertake mediation of the dispute to the greatest extent possible. This might include informal mediation by the staff ranging to binding arbitration by a neutral third party. From the FCC's perspective, resolution of such disputes through mediation conserves limited resources.

4. Telephone Operator Consumer Services Improvement Act Requirements

PCS providers are subject to the consumer protection provisions found in Section 226, which codifies the Telephone Operator Consumer Services Improvement Act ("TOCSIA").[59] Section 226 regulates two classes of providers: aggregators and providers of operator services. Aggregators, such as hotels and hospitals, "make telephones available to the public or to transient users of its premises, for interstate telephone calls using a provider of operator services."[60] Operator services are, in turn, defined as "interstate telecommunications

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[59] P. L. 101-435, 104 Stat. 986 (1990).

[60] 47 U.S.C. § 226(a)(2). TOCSIA requirements may be found in the Commission's rules at 47 C.F.R. § 64.702 et seq.

service initiated from an aggregator."[61] PCS providers would may therefore be regulated as providers of operator services.

Section 226 attempts to prevent providers of operator services from engaging in a range of anti-consumer activities. It therefore requires that PCS providers identify themselves and disclose their rates upon request. It prohibits PCS providers from billing consumers for uncompleted calls, and from engaging in "call splashing."[62] Call splashing is defined as the transfer of a call from one provider to another in such a way that the transferee is unable to determine the location of the call and is therefore prevented from billing for the call.[63] PCS providers are also required to withhold payment to aggregators who unlawfully block access to interstate carriers by means of 950 or 800 numbers.

Finally, Section 226 requires PCS providers to file informational tariffs that disclose the rates, terms, and conditions of their operator service offerings. These tariffs must specify "any fees which are collected from consumers and [contain] reasonable estimates of the amount of traffic priced at each rate."[64] It should be noted that informational tariffs are subject to streamlined procedures similar to those applicable to cellular services. For example, they may be filed without notice.

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[61] 47 U.S.C. § 226(a)(7).

[62] 47 U.S.C. § 226(b).

[63] 47 U.S.C. § 226(a)(3).

[64] 47 U.S.C. § 226(h).

5. Telecommunications Relay Services Obligations

Section 225 of the Communications Act was passed as part of the Americans with Disabilities Act of 1990.[65] It requires PCS providers to provide telecommunication relay services ("TRS"), which enable hearing and speech-impaired individuals to use telephone services. TRS centers facilitate communication by translating voice messages to text and vice versa. The service is provided to speech and hearing-impaired individuals at regular telephone rates. State and federal TRS funds have been established to subsidize the cost of these services.[66]

Importantly, PCS providers are required to pay into the federal TRS fund regardless of whether they are themselves providers of telephony. PCS providers must submit FCC Form 431, TRS Fund Worksheet, on an annual basis. Charges are calculated as a percentage of gross revenues for interstate services.[67] The charge is currently set at 0.03 percent of gross revenues for interstate services.[68] The costs for intrastate PCS programs may also be reimbursed by state TRS funds. PCS providers are eligible to receive payments from federal and state TRS funds if they offer TRS. However, TRS services may also be provided by a separate TRS facility, in which case the TRS facility would be eligible to receive TRS payments.

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[65] Pub.L. 101-336, 104 Stat. 327, 366-69 (1990).

[66] 47 C.F.R. § 64.604(c)(4)(iii)(A).

[67] *CMRS Second R&O*, 9 FCC Rcd at 1488.

[68] Further Forbearance from Title II Regulation for Certain Types of Commercial Mobile Radio Service Providers, 9 FCC Rcd 2164, 2168 (1994).

C. Permissible Communications

The FCC has restricted use of 2 GHz PCS spectrum for mobile communications services. In particular, broadcasting (as defined in the Communications Act) is prohibited, and fixed services may only be provided if ancillary to mobile operations. Within these broad guidelines, licensees are permitted to offer any type of voice or data communications, including, but not limited to, public mobile communications, wireless PBX offerings, and campus area telephony systems.

D. Conditions on Authorizations

1. License Term and Renewal

PCS licenses are granted for a term of ten years, with a significant renewal expectancy. The provisions regarding renewal expectancy are similar to the rules for cellular service. A renewal applicant involved in a comparative renewal proceeding shall receive a preference, commonly referred to as a renewal expectancy, if its past record for the relevant license period meets two criteria. First, the renewal applicant must have provided "substantial" service during its past license term. "Substantial" service is defined as service that is sound, favorable, and substantially above a level of mediocre service that might just minimally warrant renewal. Second, the applicant must have substantially complied with applicable Commission rules and policies, and the Communications Act. A grant of a renewal expectancy is the most important comparative factor to be considered in a comparative renewal proceeding.

2. Build-Out Requirements

The FCC imposes build-out requirements on licensees to ensure that spectrum is not warehoused or used inefficiently. For broadband PCS, the FCC has specified that each 30 MHz licensee must construct facilities that provide coverage to one-third of its service area population within five years. Within ten years, each licensee must provide coverage to two-thirds of its service area population. Similarly, the 10 MHz licensees must provide coverage to one-fourth of their service area population within five years. Ten MHz licensees also may present an alternative acceptable showing that they are providing substantial service.

At the five-year benchmark, all licensees must file a map and other supporting documentation showing compliance with the construction requirements. Thirty MHz licensees must also file at the ten-year mark. A licensee, if it so chooses, may use year 2000 census data to determine the ten-year construction requirement, rather than the 1990 census data. This will ensure that licensees are not required to meet obsolete benchmarks.

Licensees failing to meet the population coverage requirements will be subject to license forfeiture, and the licensee will not be able to regain the forfeited authorization. Where circumstances are unique and the public interest would be served, the Commission will consider waiving the construction requirements. Such consideration will be handled on a case-by-case basis.

Rural telephone company licensees may partition subportions of their PCS service areas under certain circumstances. Partioned licenses are wholly separate licenses, and

licensees in partitioned markets will be responsible for meeting the construction schedules independent of any other licensees in the same market.

E. Transfer and Assignment of PCS System Licenses

1. Procedures for Transfers of Control and Assignment of Authorizations

The Communications Act and the FCC's rules require a licensee first to seek and receive FCC approval before a transfer of control or assignment of license may be undertaken. At the simplest level, a transfer of control consists of a transfer of the majority of stock in a corporation or the majority of partnership interests or a general partnership interest to another party. As discussed below, however, other actions short of transferring a majority interest may also trigger a transfer of control. An assignment of license, on the other hand, involves a transfer of the license itself to an entity -- whether an individual, partnership, or corporation -- other than the current licensee. Thus, in a transfer of control, the licensee nominally remains the same, but the party or parties dominating the affairs of the licensee are changed. In an assignment, the licensee itself is a different entity.

There are two categories of transfers and assignments -- *pro forma* and substantial. Examples of *pro forma* transactions include:

- The assignment of the license from a corporation to a partnership controlled by that corporation;
- The transfer of control of the licensee from an individual to a corporation controlled by that individual; or

- The assignment of the license from one corporation controlled by an individual to a different corporation controlled by that individual.

Substantial transfers of control and assignments of license involve a transaction with a party not related to or affiliated with the licensee.

Applications seeking FCC approval of the transfer of control of a PCS licensee or the assignment of a PCS license will be filed on FCC Form 490.[69] The purpose of this application is to describe the nature of the contemplated transaction, to identify the proposed transferee or assignee and show that it is qualified to hold the authorization, and to demonstrate that approval of the proposed transfer or assignment is in the public interest. The application form also requires the submission of FCC Form 430 as part of the application package.

Applications proposing a substantial transfer of control or assignment of license must be placed on public notice for 30 days prior to FCC action. This public notice period permits the filing of petitions to deny by interested parties seeking to show that the proposed transferee or assignee is not qualified or that the contemplated transaction is inconsistent with the public interest. In the event that no petitions to deny are filed, the application grant can be reflected in a public notice of the FCC's action. Should any petitions to deny be filed, the FCC will need to review the arguments and prepare a written order.[70] *Pro forma*

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[69] A summary of FCC forms and fees for narrowband PCS is attached as Appendix A.

[70] In the event that a petition to deny is filed, the applicants may seek to settle the dispute with the petitioning party. If the parties reach agreement and the petitioner withdraws its petition to deny, the FCC's rules limit the funds or other consideration to be received by the petitioner to the legitimate and prudent expenses incurred in the pursuit of the objection. The parties must make a showing to this effect, and the Commission must approve the settlement arrangement.

applications, on the other hand, may be granted without prior public notice, but remain subject to the subsequent filing of petitions for reconsideration.

Upon receiving Commission consent to a proposed transfer of control or assignment of license, the FCC's rules require that the transaction be completed within a specified period after the grant of consent. Although no specific time period is provided under Part 24 of the Commission's rules, analogous consents under Part 22 provide a 60 day period for consummating the transaction and notifying the Commission by letter. It is possible to request an extension of this closing period upon making the appropriate showing of the need for additional time.

Finally, where the authorization involved was awarded by means of competitive bidding, the applicants must submit the associated contracts for sale, option agreements, management agreements, or other documents disclosing the total consideration received for the transfer of control or assignment of license. The Commission will review this information to monitor for unjust enrichment to the original holder of the license. The FCC has indicated that it will give close scrutiny to auction winners that have not yet begun commercial service and who seek approval for a transfer of control or assignment of license within three years of the initial license grant.

2. Ensuring Compliance With Ownership and Control Obligations

Under FCC policies, a licensee is expected to remain in control of its licensed facilities at all times. It is not sufficient for the licensee to retain legal (*de jure*) control; it

also must possess control in fact (*de facto*).[71] While a licensee is permitted to delegate certain functions and to employ other entities to perform certain construction and operational duties, the FCC has set forth six factors to be reviewed to determine whether the licensee has retained *de facto* control of its authorization and related facilities and operations. These factors are:

- Does the licensee have unfettered use of all facilities and equipment?
- Who controls daily operations?
- Who determines and carries out the policy decisions, including preparing and filing applications with the FCC?
- Who is in charge of employment, supervision, and dismissal of personnel?
- Who is in charge of the payment of financing obligations, including expenses arising out of operating? and
- Who receives monies and profits derived from the operation of the facilities?[72]

As these factors indicate, the determination of whether a licensee has maintained *de facto* control of its license is specific to the circumstances of a particular situation. As a result, the Commission undertakes a case-by-case analysis of the particular facts before it.

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[71] It is possible for a licensee to seek Commission consent to a transfer of *de facto* control to another entity, although such proposals have rarely been presented to the Commission in the common carrier mobile services context.

[72] *See* Intermountain Microwave, 2 Rad. Reg. 2d (P & F) 983, 984 (1963). The FCC, at the direction of the Court of Appeals for the District of Columbia Circuit, has initiated a proceeding to review these factors and their application to licensees and their operations. *See also* Implementation of Sections 3(n) and 332 of the Communications Act -- Mobile Service Regulation, GN Docket 93-252 (Nov. 18, 1994) (discussion of attribution of management agreements and joint marketing arrangements).

The primary area in which questions of *de facto* control arise is in the context of management agreements used by licensees in connection with the construction and/or operation of their system.[73] Licensees should also note that, even though a particular management agreement may not explicitly give rise to an attributable interest under the Commission's prior orders on spectrum caps, the management agreement may nonetheless constitute a *de facto* transfer of control. Accordingly, before undertaking any sort of management arrangements with another entity, a licensee should ensure that the terms of the agreement comply with the Commission's current policies.

3. Sublicensing PCS Systems by Frequency or Area

As indicated in Section III(E)(3), the FCC has adopted rules permitting rural telephone companies to obtain broadband PCS licenses that are geographically partitioned from larger PCS service areas. The FCC also has recently initiated a proceeding seeking comments as to whether women and/or minority owned applicants should be able to engage in the same partitioning arrangements made available to rural telephone companies. To date, the FCC has not yet generally authorized all PCS licensees to obtain a PCS license and then assign either portions of the geographic service area or portions of the originally licensed spectrum to other entities.

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[73] *De facto* control issues can arise in other situations, however. For example, a limited partner that also possesses an option to acquire *de jure* control of a partnership licensee might seek to leverage its legal rights into an exertion of control over the licensee's behavior.